Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method of ~~fabricating electronic, optical or magnetic devices requiring an array of large numbers of small features in which regions defining individual features of the array are formed by the steps of~~ forming an array of features, the method comprising:

(a) depositing a ~~very thin~~ film of a ~~highly~~ soluble solid onto a ~~flat~~ surface of a hydrophilic substrate:

(b) exposing the film to solvent vapour ~~under controlled conditions~~ so that the film reorganises into an array of discrete hermispherical islands on the surface;

(c) depositing a film of a ~~suitable~~ resist material over the ~~whole~~ surface;

(d) removing the hemispherical structures together with their coating of resist leaving a resist layer with an array of holes corresponding to the islands; and

(e) subjecting the resulting structure to ~~a suitable~~ an etching process so as to form a well at the position of each hole.

2. (Original) A method according to claim 1 in which the soluble solid is a salt, and the solvent is water.

3. (Original) A method according to claim 2 in which the solid is cesium chloride.

4. (Previously presented) A method according to claim 1 in which the substrate comprises an SiO_2 layer on silicon.

5. (Previously presented) A method according to claim 1 in which the substrate comprises gallium arsenide, indium antimonde, indium antimonide or

another semiconductor material.

6. (Previously presented) A method according to claim 1 in which the resist material is deposited by evaporation, sputter deposition, or chemical vapour deposition.

7. (Currently amended) A method according to claim 1 in which the resist material comprises ~~aluminium~~ aluminum.

8. (Previously presented) A method according to claim 1 in which the removal of the coated hemispherical structures is achieved by a lift-off process which comprises submerging the structure in an ultrasonic agitation bath filled with solvent, whereby the islands are dissolved and their coatings detached, leaving a perforated film over the remainder of the substrate to act as an etchant resist.

9. (Previously presented) A method according to claim 1 in which the etching is achieved by directional etching such as reactive ion etching or laser etching to make well-like structures.

10. (Previously presented) A method according to claim 1 in which the evaporation of resist material is achieved by directing the vapour stream at a grazing angle of incidence to the substrate, so that each island casts a shadow in which there is no vapour deposition, whereby the holes remaining in the film after removal of the hemispherical structures will be elongated.

11. (Original) A method of forming a crystalline heterostructure comprising two component materials having different lattice structures, in which the materials are arranged to contact each other via a plurality of discrete regions, the method comprising the steps of:

(a) forming a layer of the first material;

(b) forming an insulating layer on the surface of the first material so as to provide a hydrophilic substrate;

(c) forming holes in the insulating layer using the method of any one of claims 1 to 10; and

(d) growing crystals of the second material on the first material in the regions exposed by the holes so as to form an island at the position of each hole.

12. (Original) A method according to claim 11 in which the crystal growth of the second material is continued until there is a continuous film extending over the insulating layer.

13. (Previously presented) A method according to claim 11 in which the two component materials are both semiconductors.

14. (Previously presented) A method according to claim 11 in which the two component materials are both metals.

15. (Currently amended) A method according to claim 11 in which ~~the combination of materials comprises~~ said two component materials comprise:

(a) a metal and a semiconductor; or

(b) a semiconductor and an insulator; or

(c) a metal and an insulator.

16. (Previously presented) A method according to claim 11 in which one of the materials is a metal compound comprising MaAs, MnSb, NiMnSb, PtMaSb, CuMnSb, LuPdSb, $C0_2MnGe$, or CrO_2.

17. (Previously presented) A crystalline heterostructure formed by the method of claim 11 in which one of the materials is a semiconductor and one is an insulator, the structure being arranged to form a gate dielectric device, or an integrated optical waveguide device, or a surface acoustic wave delay line together with associated circuitry as required.

18. (Original) A structure according to claim 17 in which the insulator has a high dielectric constant.

19. (Currently amended) An array of ~~devices formed by a process~~

~~which includes defining the regions of individual devices using~~ wells formed in a substrate by the method of claim 1.

20. (Previously presented) A crystalline heterostructure formed by the method of claim 11.

21. (New) A method of forming an array of features comprising:

(a) depositing a film of a soluble solid onto a surface of a hydrophilic substrate;

(b) exposing the film to solvent vapour so that the film reorganises into an array of discrete hemispherical islands on the surface;

(c) depositing a film of a resist material over the surface, the film having a thickness of less than a fifth of an average diameter of the islands;

(d) removing the hemispherical structures together with their coating of resist leaving a resist layer with an array of holes corresponding to the islands; and

(e) subjecting the resulting structure to an etching process so as to form a well at the position of each hole.

22. (New) A method of forming an array of features comprising:

(a) depositing a film of a soluble solid onto a surface of a hydrophilic substrate;

(b) exposing the film to solvent vapour so that the film reorganises into an array of discrete hemispherical islands on the surface;

(c) depositing a film of a resist material over the surface by directing a vapour stream of resist material at a grazing angle of incidence to the surface;

(d) removing the hemispherical structures together with their coating of resist leaving a resist layer with an array of holes corresponding to the islands; and

(e) subjecting the resulting structure to an etching process so as to form a well at the position of each hole.

23. (New) A method according to claim 22, wherein the islands cast a shadow in which there is no vapour deposition.

24. (New) An array of wells formed in a substrate, the wells having an eliptical cross-section.